A2500-2
9/12/88

Paper Paperboard & Wood Pulp

MONTHLY STATISTICAL SUMMARY - Vol. 66 No. 8 AUGUST 1988

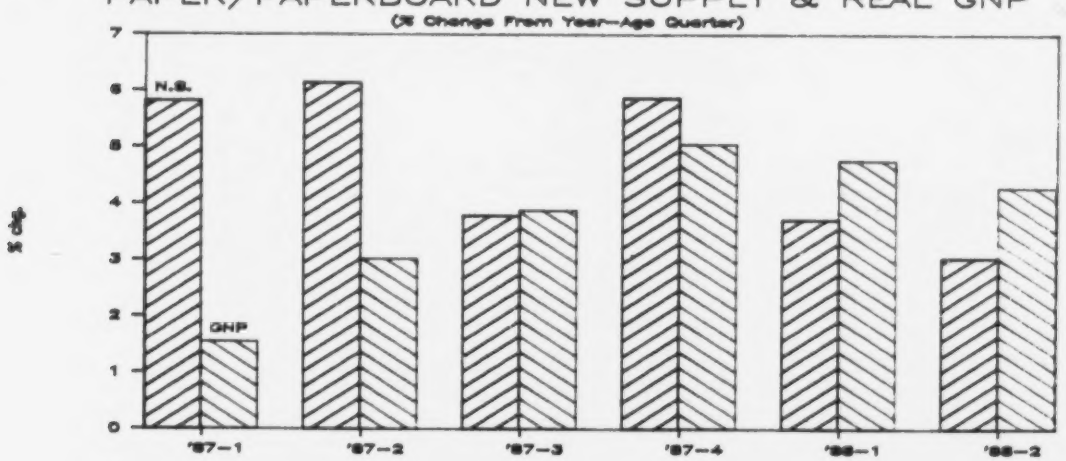
PAPER AND PAPERBOARD DEMAND HOLDS STEADY

Monthly production of paper and paperboard advanced sharply from early 1986 through the end of 1987, but has fluctuated about an essentially flat trend averaging 6,370 tons a month (seasonally adjusted) during 1988. Nevertheless, because production was at record-high levels when the trend stabilized, output of paper and paperboard exceeded its year-ago volume by 3.8% during the first seven months of 1988. The year-to-date gain for paper production was stronger than for paperboard: 4.7% versus 3%.

The principal impetus for 1988's strength in paper production came from the printing-writing grades, particularly coated papers, uncoated free sheet, and bleached bristols. (See table on page 3.) The two main contributors to paperboard growth have been linerboard and recycled paperboard.

New supply of paper and paperboard (i.e., domestic production plus imports minus exports) has also held fairly steady since last year's fourth quarter. New supply grew faster than deflated GNP during 1987 (particularly in the fourth quarter), but has trailed slightly behind GNP this year. As a result, the ratio of new paper and paperboard new supply to real GNP rose from 20,800 tons per billion dollars of GNP in 1986 to 21,200 tons per billion dollars of GNP in 1988, which was the highest ratio since 1984. Paper and paperboard were both above their long-term relationship to real GNP in 1987.

PAPER/PAPERBOARD NEW SUPPLY & REAL GNP



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Last year's relatively high ratio of new supply to real GNP may have reflected market-channel inventory building beyond the converting level; there is no evidence of excess inventory building at paper and paperboard converters during 1987.

The ratio of new supply to real GNP edged downward during the first half of 1988 to a second quarter level of 21,000 tons per billion dollars of real GNP. The abatement may have reflected slower inventory building in market distribution channels.

The chart on page 1 compares quarterly year-to-year changes in new supply of paper and paperboard with those for real GNP in 1987 and the first two quarters of 1988.

Technical Note: The seasonal adjustment factors used here for paperboard have been revised with this report. The revised pattern should still be considered preliminary and subject to further change as additional production data become available.

PAPER INDUSTRY ENERGY CONSUMPTION PATTERNS

The U.S. paper industry consumed more natural gas, but less residual fuel oil in 1987 than it did in 1986, according to data compiled by API's Energy and Materials Department. In particular, natural gas consumption by the paper industry increased 20.6% from 1986 to 1987 as mills with dual fuel capability took advantage of attractive pricing for natural gas. As a result of the gain in consumption, gas's share of total paper industry energy requirements rose to 14.4% in 1987 from 12.5% in 1986. (See table below.)

The use of residual fuel oil by the paper industry declined 18.5% last year, reducing its share of the industry's energy needs from 8.2% in 1986 to 6.7% in 1987, and thus reducing the use of imported oil as well. The paper industry reduced its use of residual fuel oil by 64% between 1972 and 1987, which is all the more dramatic considering that the paper industry's output rose 45% during that same period.

The paper industry also reduced its consumption of coal by 3.2% last year, and coal's share of the industry's energy needs declined from 14.9% in 1986 to 13.9% in 1987. Coal accounted for 10.7% of the paper industry's 1972 energy requirements.

Total purchased fossil fuel and electricity accounted for 43.3% of the industry's energy requirements in 1987, the same share as in 1986, but down sharply from 59.7% in 1972. Self-generated and residue fuels, which are mainly comprised of spent pulping liquor solids, wood residues, and bark, accounted for 56.7% of the industry's energy requirements in 1987, the same share as in 1986, but up dramatically from 40.3% in 1972.

In a related development, API's Energy and Materials Department reported that paper industry expenditures for purchased

Continued on page 11

PAPER AND PAPERBOARD STATISTICS

PRODUCTION, SHIPMENTS AND ORDERS
(Thousands of Short Tons)

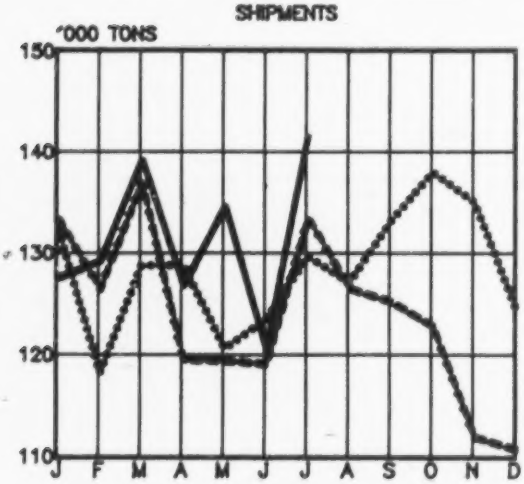
	YEAR 1986	YEAR 1987	APRIL 1988	MAY 1988	JUNE 1988 (P)	JULY 1988 (P)	Annual Rate Y-T-D 1988	% Change From same Period Last Year
PAPER								
Newsprint - Production	5,630	5,842	497	514	490	481	5,947	3.2
- Shipments	5,638	5,854	492	510	495	475	5,893	2.1
Printing & Writing Sum	19,668	20,780	1,816	1,782	1,796	1,783	21,805	7.0
Groundwood Paper - Shipments	1,540	1,485	127	135	120	142	1,576	3.5
- New Orders	1,553	1,529	121	152	122	134	1,575	1.4
-Unfilled Orders	124	164	167	179	188	177	177	37.0
Coated Papers - Shipments	6,263	6,860	609	601	617	592	7,374	10.3
- New Orders	6,334	7,066	631	620	612	662	7,492	7.2
- Unfilled Orders	469	708	678	678	689	764	764	16.1
Unctd Free Sheet - Shipments	10,410	10,977	947	921	935	928	11,338	5.6
- New Orders	10,485	11,184	990	921	964	932	11,485	6.3
- Unfilled Orders	587	773	808	779	828	836	836	42.7
Thin Papers - Shipments	271	251	20	20	16	16	230	-9.2
Cotton Fiber Paper - Shipments	152	163	13	14	13	11	162	-1.2
Bleached Bristols - Production RS	1,033	1,044	101	93	94	94	1,126	10.6
Tissue Paper - Production	5,095	5,301	445	460	451	444	5,410	3.5
Total Packaging & Other Paper	5,117	5,068	438	419	421	404	5,161	2.2
Unbl. Kraft Paper - Shipments	3,303	3,075	255	236	241	236	2,996	-3.1
Other Paper - Production	1,914	1,993	183	183	180	168	2,165	10.6
TOTAL PAPER-Production-Unadj.	35,510	36,998	3,197	3,175	3,158	3,110	38,323	5.2
-Production-S.A.			3,196	3,204	3,212	3,221	38,354	4.7
PAPERBOARD - PRODUCTION								
Solid Wood Pulp Furnish	27,336	28,944	2,362	2,503	2,416	2,488	29,524	2.7
Total Unbl. Kraft Paperboard	17,689	18,913	1,538	1,653	1,583	1,619	19,358	3.6
Unbl. Kraft Linerboard (1)	16,402	17,682	1,434	1,543	1,477	1,509	18,052	3.9
Production for Export	2,246	2,318	175	183	195	189	2,383	1.2
Other Unbl. Kraft Paperboard	1,287	1,232	104	110	106	111	1,306	-0.3
Semichemical Paperboard	5,376	5,600	447	491	466	480	5,688	1.6
Production for Export	213	189	10	10	9	10	128	-40.4
Solid Bleached Paperboard RS	4,222	4,420	377	360	366	389	4,478	0.6
Production for Export	569	619	52	45	53	46	598	-5.4
Recycled Paperboard	8,092	8,506	754	761	737	691	8,872	6.0
Production for Export	70	75	6	7	6	6	75	13.2
TOTAL PAPERBOARD-Prod.-Unadj.	35,379	37,439	3,116	3,264	3,152	3,178	38,397	3.5
- Containerboard Prod.(Dom. Use)	21,426	23,016	1,891	2,043	1,923	1,985	23,575	4.2
- Boxboard Prod.(Dom. Use) (2)	5,863	6,026	529	506	512	518	6,247	4.1
- All Other P'bd Prod.(D.U.) (2)	4,992	5,196	453	470	456	424	5,389	3.4
- Total Paperbd Prod. for Export	3,097	3,201	243	245	262	251	3,185	-2.5
TOTAL PAPERBOARD PROD.- S.A.			3,176	3,173	3,169	3,166	38,096	3.0
TOTAL PAPER AND PAPERBOARD								
Production - Unadj. (R)	70,889	74,429	6,313	6,439	6,311	6,288	76,720	4.3
Production - S.A.			6,372	6,377	6,382	6,387	76,450	3.8

(1) Includes all exports of kraft paperboard.
(2) Data for unbl. kraft folding boxboard incl. in All Other P'bd.

R - Revised P - Preliminary S.A. - Seasonally Adjusted
RS - Revised Series

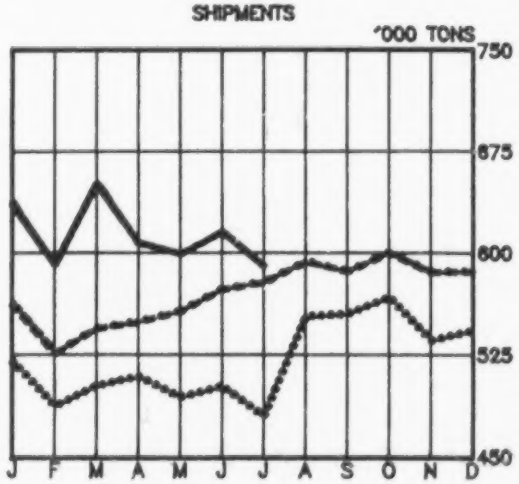
GROUNDWOOD PAPER, UNCOATED

SHIPMENTS



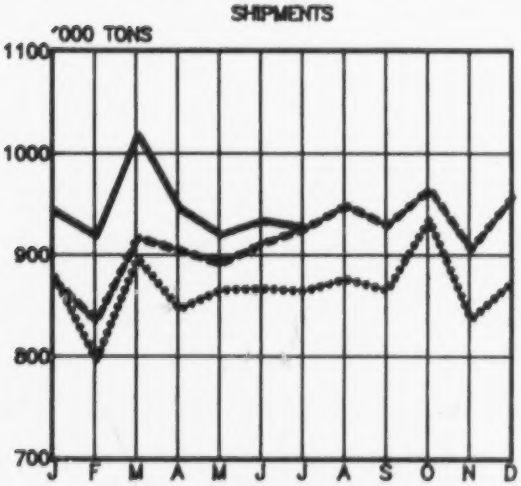
COATED PAPER

SHIPMENTS



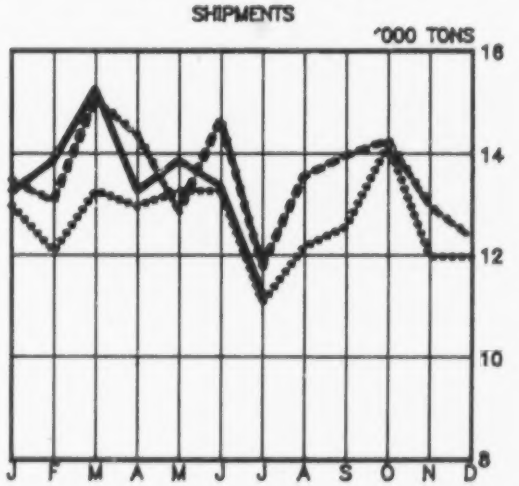
UNCOATED FREE SHEET PAPERS

SHIPMENTS



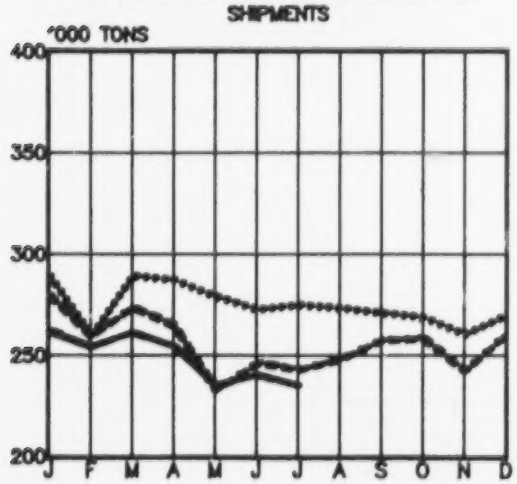
COTTON FIBER PAPER

SHIPMENTS



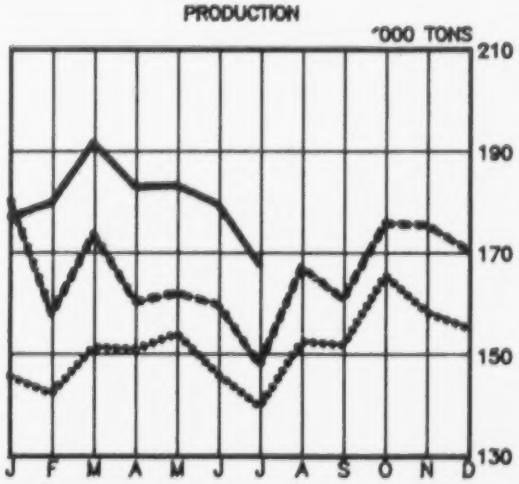
UNBLEACHED KRAFT PACKAGING AND INDUSTRIAL CONVERTING PAPER

SHIPMENTS



OTHER PAPER

PRODUCTION



1986 ••••••••• 1987 ▬▬▬▬ 1988 ——————

WOOD PULP STATISTICS
(Thousands of Tons)

	YEAR 1986	YEAR 1987	MARCH 1988	APRIL 1988	MAY 1988	JUNE 1988	Annual Rate Y-T-D 1988	% Change from same Period Last Year
TOTAL WOOD PULP					R	P		
Total Wood Pulp - Production	57,005	59,552	5,222	5,004	4,991	4,964	60,744	3.2
- Imports	4,582	4,850	432	428	415	415	5,017	3.0
- Exports	4,458	4,889	491	453	433	497	5,416	14.2
- New Supply	57,129	59,513	5,163	4,979	4,973	4,881	60,344	2.3
Dissolving Pulp - Production	1,258	1,312	109	105	99	131	1,317	2.8
- Imports	255	198	26	21	16	19	246	12.2
- Exports	711	752	78	81	61	101	859	14.9
- New Supply	801	757	57	44	54	49	703	-6.5
Paper Grades - Production	46,081	48,293	4,259	4,037	4,011	4,003	49,150	2.9
Chemical Pulp - Imports	4,220	4,456	378	370	360	362	4,397	-2.3
- Exports	3,689	4,111	402	365	368	395	4,507	13.6
- New Supply	46,612	48,637	4,235	4,042	4,003	3,971	49,041	1.6
Groundwood and - Production	5,476	5,702	495	509	507	481	5,957	7.4
Thermo-Mech. - Imports	108	197	28	37	39	33	374	146.6
- Exports	59	26	11	6	3	1	50	98.2
- New Supply	5,525	5,872	512	539	543	513	6,280	10.7
Semi-Chemical - Production	4,191	4,246	369	354	373	349	4,320	1.3
- Imports								
- Exports								
- New Supply	4,191	4,246	369	354	373	349	4,320	1.3
MARKET WOOD PULP								
Total Market - Production	7,572	8,114	728	676	642	700	8,304	5.4
Wood Pulp - Imports	3,122	3,235	296	298	260	288	3,405	8.5
- Exports	4,470	4,820	477	392	379	456	4,933	6.7
- New Supply	6,224	6,529	547	582	523	532	6,776	5.9
Dissolving Pulp - Production	1,251	1,308	109	104	99	130	1,315	3.1
- Imports	212	154	18	20	13	18	214	27.5
- Exports	718	775	85	62	59	79	774	2.3
- New Supply	745	687	42	62	53	70	755	9.9
Paper Grades - Production	6,315	6,806	619	571	543	570	6,990	5.8
Chemical Pulp - Imports	2,831	2,975	261	261	238	258	3,017	4.7
- Exports	3,752	4,045	391	330	320	378	4,159	7.6
- New Supply	5,394	5,736	489	502	461	450	5,847	4.0
Groundwood Pulp - Production	5	0	0	0	0	0	0	0
and All Other - Imports	79	106	16	18	9	12	175	91.7
- Exports	0	0	0	(0)	0	(0)	(0)	0.0
- New Supply	85	106	16	18	9	12	175	91.7

SOURCES: Total Wood Pulp Production & Market Wood Pulp Production, Imports & Exports - Pulp Division, Pulp, Materials and Technology Group, API. Total Wood Pulp Imports & Exports - Department of Commerce.

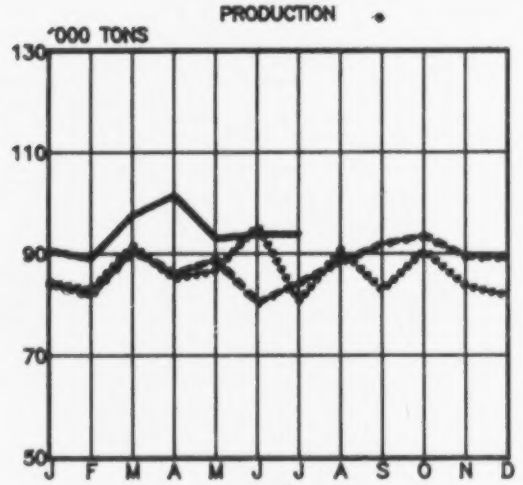
FIBROUS RAW MATERIALS
(Thousands of tons)

	YEAR 1986	YEAR 1987	MARCH 1988	APRIL 1988	MAY 1988	JUNE 1988	Annual Rate Y-T-D 1988	% Change from same Period Last Year
CONSUMPTION AT PAPER & PAPERBOARD MILLS				R	P	P		
Total	74,345	77,770	6,866	6,545	6,652	6,495	79,590	3.4
Total Wood Pulp	57,061	59,474	5,205	5,004	5,041	4,932	60,672	3.0
Waste Paper	17,285	18,296	1,660	1,541	1,611	1,563	18,918	4.9
INVENTORIES								
Chemical Paper Grade Market Pulp								
Producers' Own-Use Inventories	174	170	169	169	168	175	175	-0.7
Producers' Market Inventories	284	224	237	256	243	193	193	-30.1
Consumers' Purchased Inventories #	496	529	532	532	513	534	534	0.8
Waste Paper at Paper & Bd. Mills	838	920	926	937	897	906	906	10.4
Days of Supply at Pulp Mills of Chemical Paper Grade Mkt Pulp	16	12	12	13	13	10	10	-33.3

SOURCES: Wood Pulp Data, Pulp Division, Pulp, Materials and Technology Group, API. Waste Paper Data, Paper Recycling Committee, API. # Includes all grades of wood pulp.
P - Preliminary; R - Revised; (0) - Indicates zero to five-hundred short tons

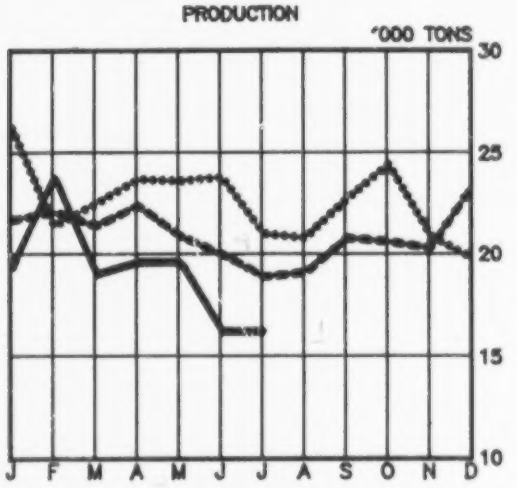
BLEACHED BRISTOLS

PRODUCTION



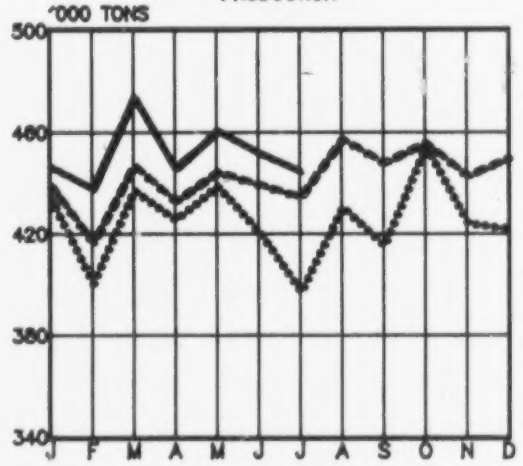
THIN PAPER

PRODUCTION



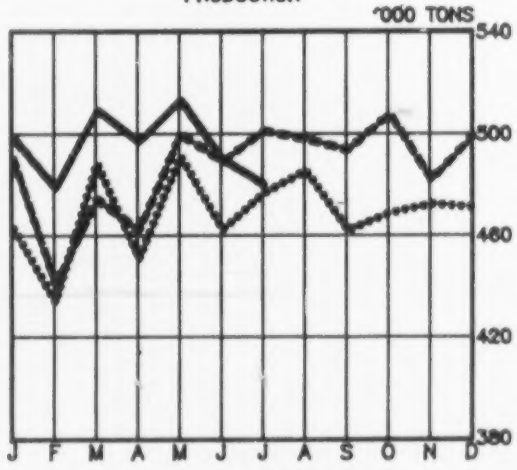
TISSUE PAPER

PRODUCTION



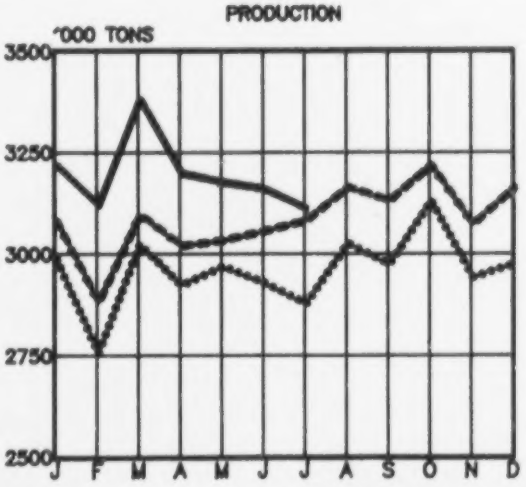
NEWSPRINT

PRODUCTION



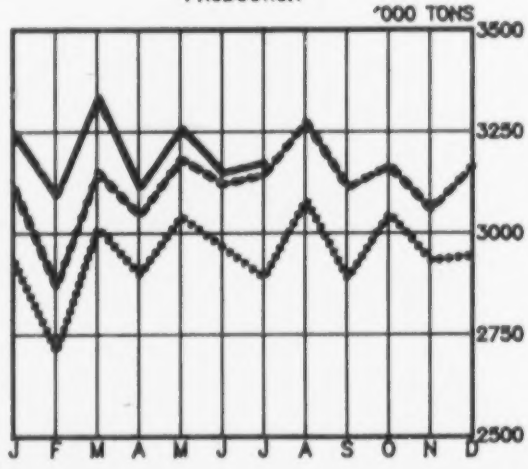
TOTAL PAPER

PRODUCTION



TOTAL PAPERBOARD

PRODUCTION



1986 ••••••• 1987 ▬▬▬ 1988 ——

F I B R O U S R A W M A T E R I A L S
(Thousands of Standard (128 cubic foot) Cords)

		YEAR 1986	YEAR 1987	MARCH 1988	APRIL 1988	MAY 1988	JUNE 1988	Annual Rate Y-T-D 1988	% Change From Same Period Last Year
PULPWOOD									
Total U.S.	- Total Receipts	90,943	94,312	8,345	7,911	7,611	7,766	94,588	1.3
	- Total Consumpt	91,434	93,946	8,249	8,137	7,650	7,689	95,382	2.3
	- Residues *	32,755	32,899	2,924	2,925	2,753	2,683	33,092	1.8
	- Inventories	4,794	5,096	4,942	4,642	4,420	4,507	4,507	-3.1
So. Atlantic	- Total Receipts	29,513	31,147	2,807	2,663	2,412	2,489	30,972	2.1
	- Total Consumpt	29,425	30,915	2,708	2,740	2,450	2,512	31,230	2.7
	- Residues *	9,343	9,553	903	865	785	683	9,766	9.2
	- Inventories	994	1,211	1,155	1,090	1,041	1,033	1,033	4.1
Northeast	- Total Receipts	7,277	6,941	621	456	541	630	6,922	-3.0
	- Total Consumpt	7,227	7,109	645	660	621	582	7,468	2.4
	- Residues *	1,419	1,543	150	144	134	141	1,548	3.3
	- Inventories	484	594	657	491	402	445	445	1.1
South Central	- Total Receipts	31,790	33,650	3,005	2,799	2,716	2,789	33,434	0.3
	- Total Consumpt	32,113	33,059	2,981	2,754	2,699	2,748	33,484	2.4
	- Residues *	9,792	9,992	887	806	802	841	9,814	-4.5
	- Inventories	926	1,294	1,070	1,067	1,018	1,068	1,068	3.4
North Central	- Total Receipts	6,571	6,552	589	482	563	586	7,122	12.2
	- Total Consumpt	6,730	6,764	595	588	606	582	7,160	6.1
	- Residues *	1,042	1,263	108	102	105	118	1,394	37.5
	- Inventories	892	830	1,000	891	818	806	806	-0.6
West	- Total Receipts	15,792	16,022	1,323	1,511	1,379	1,272	16,138	-0.5
	- Total Consumpt	15,939	16,099	1,320	1,395	1,274	1,265	16,040	-0.2
	- Residues *	11,159	10,548	868	1,008	927	820	10,450	-2.0
	- Inventories	1,490	1,167	1,060	1,103	1,141	1,155	1,155	-16.0

* - Consumption of Residues in Cord Equivalents. SOURCE: American Pulpwood Association

U N I T E D S T A T E S T R A D E W I T H C A N A D A

IMPORTS FROM CANADA

	YEAR Tons	1987 ($000's)	MAY 1988 Tons	MAY 1988 ($000)	JUNE 1988 Tons	JUNE 1988 ($000)	Annual Rate Y-T-D 1988 Tons	% Change From same Period Last Year
Pulpwood, Roundwood (in cords of 128 cubic feet)	15,382	1,736	1,875	524	36	4	29,974	2321.2
Pulpwood chips	497,147	15,250	64,778	3,051	45,268	2,451	786,396	89.7
Wood Pulp, Total	4,320,114	1,842,019	362,068	185,904	354,762	181,651	4,285,138	-2.3
Waste Fibrous Materials, Total	186,286	36,423	21,998	4,692	21,033	4,663	250,412	30.2
Paper, Board & Products, Total	10,588,047	5,093,983	929,283	503,556	881,184	489,576	10,786,849	1.8
Paper, Paperboard,Wet Machine Bd. & Constr. Paper & Bd.	10,441,472	4,845,663	917,577	482,849	869,149	459,894	10,619,790	1.1
Paper, Paperboard & Products	10,365,412	5,027,943	910,264	496,924	864,010	475,401	10,589,360	1.4
Paper & Paperboard, Only	10,218,838	4,779,782	898,550	476,217	851,975	454,719	10,442,300	1.4
Paper, Total	9,961,198	4,698,148	875,987	468,034	828,694	446,354	10,179,952	1.3
Newsprint	8,588,389	3,956,147	741,038	384,392	689,623	361,614	8,573,464	-1.6
Printing, Writing & Rel. Pap.	1,111,641	681,978	111,845	68,668	115,886	70,571	1,309,036	23.7
Pack. & Ind. Conv. Paper	215,514	102,986	18,507	10,195	18,222	9,832	236,562	6.2
Special Industrial Paper	5,478	9,844	503	990	409	817	4,664	-25.3
Tissue Paper	40,257	27,194	4,894	3,789	4,554	3,519	52,227	32.9
Paperboard, Total	257,639	81,554	22,571	8,183	23,281	8,365	266,348	6.1
Convtd Paper&Paperbd Products	146,575	248,241	11,706	20,707	12,035	20,682	147,060	-2.8
Wet Machine Board	2,890	1,977	238	172	274	195	3,197	2.9
Construction Paper & Board	219,744	63,983	18,781	6,460	16,900	4,980	194,292	-15.5

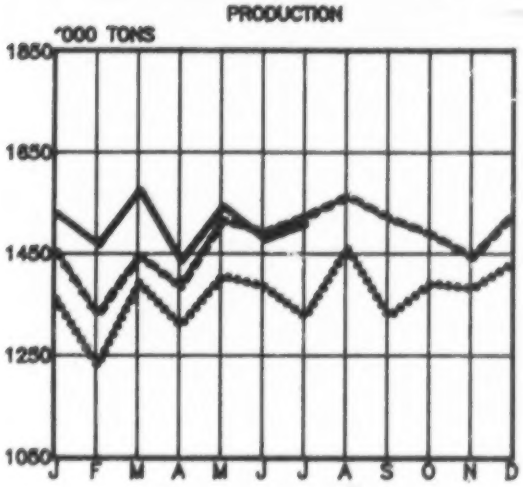
EXPORTS TO CANADA

Pulpwood, Roundwood (in cords of 128 cubic feet)	12,617	770	2,740	159	0	0	15,418	341.5
Pulpwood chips	61,575	4,014	7,921	438	761	35	45,244	-45.0
Wood Pulp, Total	198,921	75,956	18,881	6,927	18,444	6,500	261,668	10.4
Cotton Pulp & Other Pulp	58,288	14,775	7,784	2,285	6,884	1,858	84,974	107.2
Waste Paper	286,898	30,592	30,118	3,509	25,512	2,827	307,152	16.5
Paper, Board & Products, Total	957,434	598,429	101,072	63,054	99,681	61,983	1,339,487	50.7
Paper, Paperboard,Wet Machine Bd. & Constr. Paper & Bd.	712,494	398,256	69,251	40,251	72,583	40,217	1,046,853	55.0
Paper, Paperboard & Products	920,755	581,481	98,534	61,765	96,966	60,598	1,305,460	53.2
Paper & Paperboard, Only	675,815	381,308	66,714	38,963	69,788	38,844	1,012,107	58.5
Paper, Total	297,585	250,807	38,406	25,986	26,106	24,695	366,271	21.5
Newsprint	4,525	3,728	270	231	480	459	3,731	-27.6
Printing, Writing & Rel. Pap.	151,716	125,667	14,974	13,979	13,850	13,628	175,821	28.3
Pack. & Ind. Conv. Paper	25,826	17,841	2,893	2,211	2,496	2,291	40,376	63.0
Special Industrial Paper	110,107	97,880	11,731	9,129	9,896	7,824	141,878	15.8
Tissue Paper	5,411	6,490	538	435	384	486	5,263	48.5
Paperboard, Total	378,230	130,501	36,308	12,977	43,482	14,149	645,836	91.7
Convtd Paper&Paperbd Products	244,940	200,173	31,821	22,802	27,178	21,746	293,353	17.2
Wet Machine Board	10,212	4,828	430	165	985	363	7,228	-48.2
Construction Paper & Board	26,467	12,120	2,187	1,123	1,818	1,831	26,719	18.3

SOURCE: Bureau of Census, Department of Commerce . E - Estimate of tonnage based on square foot data

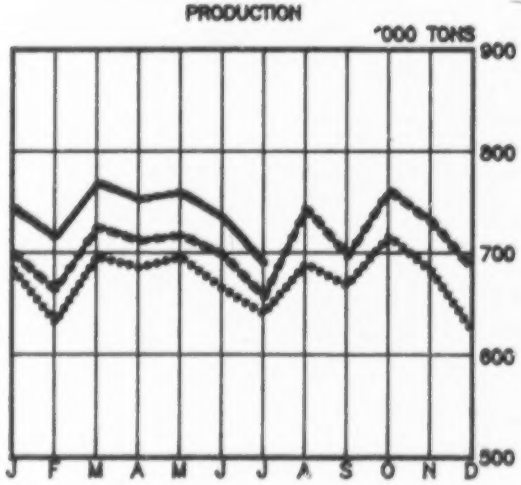
UNBLEACHED KRAFT LINERBOARD

PRODUCTION



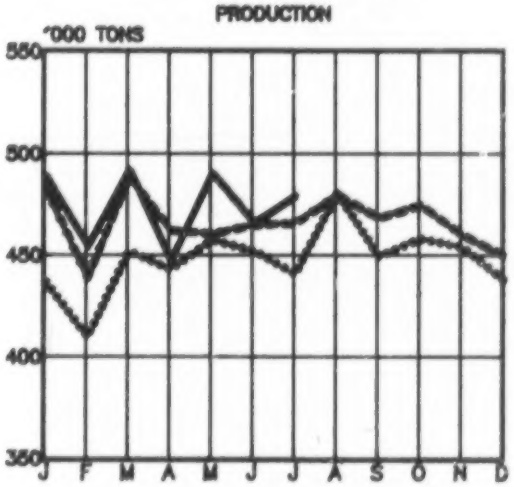
RECYCLED PAPERBOARD

PRODUCTION



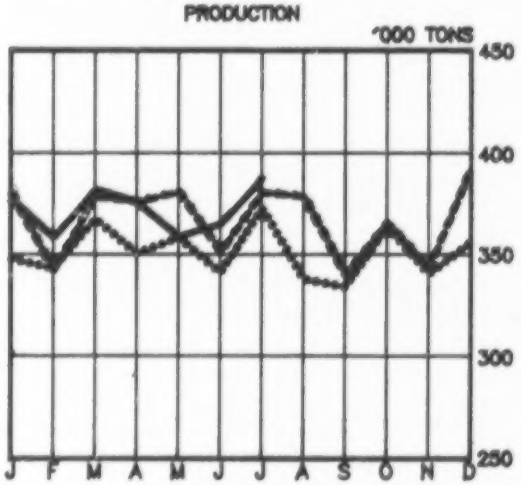
SEMICHEMICAL PAPERBOARD

PRODUCTION



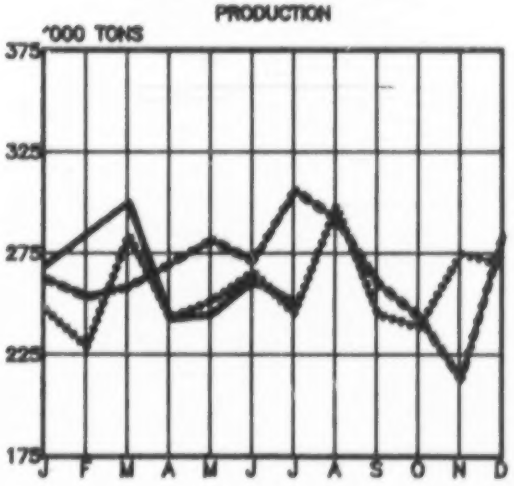
SOLID BLEACHED PAPERBOARD

PRODUCTION



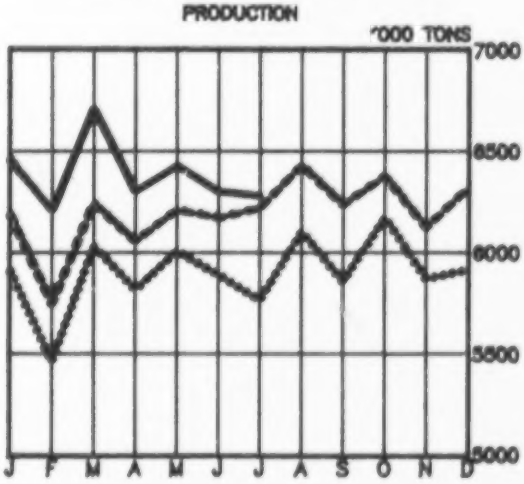
PAPERBOARD FOR EXPORT

PRODUCTION



TOTAL PAPER AND PAPERBOARD

PRODUCTION



1986 ••••••• 1987 ——— 1988 ———

I M P O R T S

	YEAR 1987 Tons	YEAR 1987 $000	1988 MAY Tons	1988 MAY $000	1988 JUNE Tons	1988 JUNE $000	(1) Annual Rate YTD 1988 Tons	% Change from same Period Last Year
Pulpwood Roundwood (cords)	15,432	1,746	1,875	524	38	5	29,978	2149.5
Pulpwood Chips	525,629	15,476	65,508	3,888	49,728	2,539	804,496	66.4
Total All Imports	17,891,172	9,043,600	1,561,719	903,103	1,516,170	882,416	18,441,031	3.5
Wood Pulp Total	4,850,238	2,069,389	414,958	215,093	414,703	217,872	5,016,700	3.0
Waste Paper	127,398	19,231	14,371	2,247	13,382	2,101	174,260	49.3
Other Fibrous Materials	76,491	27,287	9,400	3,291	9,855	3,331	98,060	3.6
Paper Board & Products Total	12,837,046	6,927,693	1,122,990	682,553	1,078,150	659,112	13,152,893	3.3
Paper Paperboard Wet Machine Bd. & Construction Paper & Board	12,435,486	5,995,122	1,089,811	598,527	1,041,825	574,459	12,747,666	3.6
Paper Ppbd & Prds ex Cnst&WMB	12,527,598	6,828,736	1,095,059	672,676	1,051,088	650,433	12,856,352	3.6
Paper & Paperboard Only	12,126,039	5,896,165	1,061,880	588,650	1,014,763	565,780	12,452,015	3.9
Paper Total	11,765,208	5,768,703	1,028,845	575,692	986,290	554,949	12,107,630	4.4
Newsprint	8,986,548	4,121,327	766,287	396,627	714,840	373,402	8,882,640	-1.8
Printing & Writing	2,419,216	1,412,458	232,852	156,118	239,331	159,951	2,838,821	29.6
Uncoated Groundwood	1,269,774	654,767	115,796	68,773	116,135	67,754	1,446,911	23.0
Coated Print.& Impreg. Pap.	674,531	467,865	63,204	50,104	69,155	53,679	759,960	33.9
Uncoated Free Sheet	417,395	249,943	45,419	30,894	49,245	34,270	561,407	45.4
Uncoated Book	210,624	119,775	19,983	12,888	21,408	14,100	234,126	15.1
Writing and Similar Paper	206,771	130,168	25,436	18,007	27,836	20,170	327,281	79.2
Thin (except Cigarette)	47,567	38,831	7,569	6,182	4,731	4,156	61,686	16.1
Bristols	950	1,052	65	85	67	91	857	-7.3
Total Pkg & Other Paper	310,324	191,620	25,625	19,036	27,391	17,811	326,445	5.2
Unbleached Kraft Paper	169,420	69,828	12,354	5,961	13,431	6,414	169,054	-0.5
Other Pkg. & Indust. Paper	141,904	121,792	13,271	13,075	13,960	11,397	158,391	12.0
Tissue	58,121	43,299	4,961	3,910	4,727	3,785	67,724	12.4
Paperboard, Total	360,831	127,461	33,036	12,950	28,473	10,831	344,385	-10.8
Test or Containerboard	88,981	29,352	5,996	2,726	6,322	2,801	72,801	-11.6
Semi-Chemical Corrugating	128,636	33,898	14,789	4,669	13,874	4,266	155,166	24.6
Other Paperboard	151,214	64,211	12,251	5,563	8,278	3,764	116,419	-35.8
Convtd Paper&Paperbd Products	491,559	932,571	33,179	84,025	36,325	84,653	494,337	-5.2
Paper Products, Total	368,179	866,121	29,770	78,478	33,044	78,233	367,348	-6.1
Paperboard Products, Total	33,380	66,450	3,410	5,548	3,281	6,420	36,988	3.8
Wet machine Board	3,463	2,630	347	296	348	267	4,375	20.7
Construction Pape & Board	385,985	96,328	27,583	9,581	26,714	8,412	291,276	-7.7
Notes								
Other: No Weight Avail. ($000)		201,453		13,657		17,074	178,590	-18.6
Total Imports Incl. Other($000)		9,245,053		916,841		899,490	10,652,017	10.9

E X P O R T S

							(1)	
Pulpwood, Roundwood (cords)	16,178	913	2,749	159	0	0	17,102	193.0
Pulpwood Chips	2,546,467	188,459	386,816	30,928	273,760	23,415	3,180,714	45.2
Total All Exports	14,797,437	6,907,818	1,386,675	600,723	1,491,912	660,416	16,980,221	18.7
Wood Pulp,Total	4,889,331	2,259,377	432,655	224,839	497,978	266,006	5,416,472	14.2
Cotton Pulp and Other Pulp	182,001	91,365	16,949	9,859	14,738	9,198	213,234	38.8
Waste and Old Paper	4,422,139	553,348	472,871	58,498	498,516	62,814	5,399,540	29.5
Paper, Board & Products,Total	5,303,966	3,103,728	464,200	307,535	499,700	322,399	5,950,975	13.6
Paper,Paperboard,Wet Machine Bd. & Construction Paper & Board	4,578,770	2,280,329	385,878	213,840	416,884	234,374	5,124,650	12.3
Paper, Ppbd & Prod ex Cnst&WMB	5,196,613	3,044,566	451,566	301,330	473,756	311,964	5,809,719	13.2
Paper & Paperboard, Only	4,471,418	2,221,187	373,245	207,635	399,940	223,939	4,983,395	11.8
Paper, Total	921,397	776,181	93,466	80,356	83,425	80,301	1,061,701	17.0
Newsprint	339,773	210,893	25,873	18,805	32,775	22,635	340,931	-4.0
Printing & Writing	249,092	242,639	26,859	27,765	23,428	26,143	291,358	27.7
Uncoated Groundwood	55,841	39,758	5,917	4,980	5,726	4,894	68,168	57.4
Clay Coated Paper	180,839	72,145	7,949	6,358	7,981	6,500	106,423	10.3
Uncoated Free Sheet	67,858	99,330	7,577	11,467	6,795	10,095	81,597	35.1
Other Printing & Writing	24,554	31,414	4,617	4,967	2,926	4,655	35,162	26.1
Total Pkg. & Other Paper	294,281	292,659	29,589	30,707	25,265	28,606	364,830	43.8
Unbleached Kraft	89,194	40,758	8,334	4,414	8,090	3,961	101,044	21.3
Other Pkg. & Indust. Paper	205,087	251,901	21,176	26,293	17,167	24,645	262,986	24.8
Tissue	38,332	38,790	12,824	3,080	1,956	2,918	65,478	118.6
Paperboard, Total	3,550,021	1,444,926	279,779	127,279	316,515	143,638	3,921,614	10.4
Solid Wood Pulp	3,218,952	1,321,618	255,175	115,559	290,289	131,284	3,618,566	10.6
Total Linerboard	2,296,633	912,161	165,605	65,191	181,276	74,803	2,309,762	-0.4
Bleached Kraft Linerboard	102,266	46,429	5,296	4,150	6,238	4,312	141,356	151.3
Unbleached Kraft Linerbd	2,194,367	765,731	160,310	61,041	175,045	69,691	2,159,406	-4.2
Other Unbleached Kraft	210,566	78,596	26,952	8,297	38,897	10,710	545,973	145.9
Other Bleached Kraft	647,803	407,923	59,258	40,765	67,196	45,346	719,500	8.7
Semi-Chemical Corrugating	63,951	22,938	3,360	1,306	2,920	1,225	52,331	-33.2
Recycled Paperboard	331,069	123,388	24,694	11,720	26,227	12,354	383,047	8.4
Convtd Paper&Paperbd Products	725,196	823,399	78,322	93,695	73,816	88,825	826,325	22.5
Paper Products, Total	301,282	540,681	36,195	61,311	29,373	56,989	357,797	22.1
Paperboard Products, Total	423,994	282,718	42,127	32,684	44,443	31,837	468,527	22.8
Wet Machine Board	17,328	7,816	1,186	472	1,172	522	12,870	-40.8
Construction Paper & Board E	90,824	51,485	11,527	5,733	15,772	9,912	128,386	54.9
Notes								
Other: No Weight Avail. ($000)		8,037		544		938	8,818	8.6
Total Exports Incl. Other($000)		6,815,855		601,267		661,355	7,337,186	26.9

SOURCE: Bureau of Census, U.S. Department of Commerce. E - Incl. estim. of tonnage based on square foot data.
(1) Annual Rate Year-To-Date is in tons unless otherwise specified in item description.

PRODUCER PRICE INDEXES
1982 = 100

	1986	1987	MARCH 1988	APRIL 1988	MAY 1988	JUNE 1988	Annual Rate Y-T-D 1988	% Change from same Period Last Year
Pulp, Paper and Products except Building Grades	107.5	114.3	121.6	122.6	124.1	124.8	122.6	8.6
Pulp Paper & Products, ex. Building Grades & ex Waste Paper *	106.9	113.2	120.4	121.5	123.1	123.8	121.5	8.7
Total Wood Pulp	94.7	111.5	127.0	135.0	137.2	140.1	132.5	21.6
Total Paper	107.0	111.5	119.6	121.0	122.0	122.3	120.8	9.6
Total Paper, exc. Newsprint	107.9	110.6	118.0	120.7	121.8	121.9	120.4	10.2
Newsprint	103.3	112.3	127.9	127.2	127.5	127.5	127.5	16.9
Total Paperboard	106.5	118.1	130.5	132.6	133.1	134.0	131.2	13.5
Total Paper and Paperboard *	106.8	113.6	123.0	124.6	125.5	126.0	124.0	10.9
Converted Products	109.4	114.7	119.6	119.8	122.0	122.7	120.7	6.3
Waste Paper	142.6	101.4	193.6	187.9	184.5	183.9	188.9	6.8
All Commodities	100.2	102.8	104.9	105.8	106.5	107.4	106.0	3.9
Industrial Commodities	100.0	102.6	104.7	105.6	106.1	106.5	105.5	3.8

SOURCE: Producer Price Indexes: Bureau of Labor Statistics, U.S. Department of Labor * Computed by API

TOTAL PRODUCTION BY GRADE FOR E.P.I. MEMBER COUNTRIES

	1987 Production (000 mt)	% Change 1986-87
Newsprint	1,889	4.7%
Uncoated Mechanical	4,680	4.5%
Uncoated Woodfree	6,554	2.4%
Coated Paper	7,847	12.9%
Sanitary & Household	2,899	7.1%
Other Papers	1,505	3.4%
Wrappings	3,540	1.8%
Case Materials	10,936	6.5%
Folding Boxboard	4,758	4.6%
Other Boards	3,182	0.6%
Total Paper and Board	**53,167**	**5.5%**

Source: European Paper Institute

fuels and electric energy as a percentage of the dollar value of pulp, paper and paperboard shipments declined from 14% in 1982 to 9.7% in 1986 and 8.8% last year. The decline in the paper industry's energy outlays relative to the value of its shipments resulted from a combination of factors, including energy efficiency gains through 1986, lower energy prices, and increases in the market value of paper products. Energy outlays as a percentage of the paper industry's dollar-value shipments had more than doubled from 1972 to 1982, rising from 6.9% to 14.0% 1982.

After adjustment for the net effect of changes in capacity utilization, environmental energy use and fuel mix, the energy efficiency of the paper industry (purchased energy use measured in BTUs per ton of output) improved 41.6% between 1972 and 1987. However, energy efficiency, as defined here, declined 2.3% between 1986 and 1987, the first year-to-year decline recorded for this series. Last year's pause in the long-term trend towards greater energy efficiency was largely due to the industry's taking advantage of lower natural gas prices. In fact, total purchased and self-generated energy use per ton of output declined by 0.7% in 1987. A return of higher oil and gas prices would probably lead to reduced unit consumption of purchased energy.

PAPER INDUSTRY ENERGY USAGE PATTERNS
(% of total BTUs)

	1972	1986	1987
Purchased Electricity	4.4%	6.4%	6.1%
Coal	10.7	14.9	13.9
Residual Fuel Oil	21.2	8.2	6.7
Distillate Fuel Oil	1.0	0.3	0.4
Natural Gas	21.1	12.5	14.4
Other	1.3	1.0	1.8
Total Purchased	**59.7%**	**43.3%**	**43.3%**
Wood Residues	2.0%	11.1%	10.7%
Bark	4.5	5.8	5.6
Spent Pulping Liquors	33.3	39.1	39.5
Self-Generated Hydropower	0.4	0.4	0.5
Other	0.1	0.3	0.4
Total Self-Generated	**40.3%**	**56.7%**	**56.7%**

Source: API Energy and Materials Department

EUROPEAN PAPER PRODUCTION RECORDS STRONG GAIN IN 1987

Paper and paperboard production by the 15 nations that are members of the European Paper Institute (E.P.I) rose 5.5% in 1987 to 53.2 million metric tons, according to the Institute. Consumption of paper and paperboard by the same countries came to 49.3 million tons. By way of comparison, U.S. production of paper and paperboard rose 5% in 1987, to 67.5 million metric tons, and U.S. new supply (i.e., apparent consumption) also increased 5%, to 74.2 million metric tons.

Gross exports of the E.P.I. member countries totaled 26.7 million tons in 1987, but just four countries -- Finland, Sweden, Germany, and France -- accounted for 69% of that volume, according to the Institute. Exports to countries outside the E.P.I. amounted to 6.2 million tons in 1987, or 11.7% of total production, up from 10.5% of production in 1983.

E.P.I. member countries imported 22.8 million tons of paper and paperboard in 1987, with 2.5 million tons of that total originating with non-E.P.I. nations. The 2.5 million tons imported from nations outside the E.P.I. group accounted for 5.1% of apparent consumption. The following table reports production, exports, imports, and apparent consumption of paper and paperboard for E.P.I. member countries. Production growth rates by grade are shown on page 10.

1987 PAPER AND BOARD PRODUCTION OF EPI-MEMBER COUNTRIES
(000 metric tons)

	Production	Exports*	Imports*	Apparent Consumption
Austria	2,357	1,718	362	1,001
Belgium	1,030	706	1,516	1,840
Denmark	323	163	822	982
Finland	8,012	7,040	94	1,066
France	5,832	1,787	3,299	7,344
Germany	9,924	3,384	5,134	11,674
Ireland	30	15	290	305
Italy	4,882	1,027	2,033	5,888
Netherlands	2,168	1,439	1,918	2,647
Norway	1,589	1,281	248	556
Portugal	627	185	160	602
Spain	3,252	461	743	3,534
Sweden	7,811	6,316	288	1,783
Switzerland	1,147	467	647	1,327
United Kingdom	4,183	684	5,285	8,784
TOTAL:	**53,167**	**26,673**	**22,839**	**49,333**

Source: European Paper Institute
*Intra-E.P.I. member imports/exports included

A2500-2

INDUSTRY FACT SHEET

AMERICAN PAPER INSTITUTE, INC.
260 Madison Avenue
New York, New York 10016

August 31, 1988

PRODUCTION (000 TONS)

	JULY 1988	JUNE 1988	JULY 1987	FIRST SEVEN MONTHS 1988	1987	% CHANGE YR TO DATE 1988/1987
PAPER GRADES						
Newsprint	481	490	502	3,469	3,360	3.2
Printing & Writing	1,783	1,796	1,755	12,720	11,890	7.0
Uncoated Groundwood (s)	142	120	133	919	888	3.5
Coated Paper (s)	592	617	580	4,302	3,900	10.3
Uncoated Free Sheet Paper (s)	928	935	927	6,614	6,266	5.6
Thin Paper (s)	16	16	19	134	147	-9.2
Cotton Fiber Paper (s)	11	13	12	94	96	-1.2
Bleached Bristols (s)	94	94	84	657	594	10.6
Tissue Paper	444	451	434	3,156	3,050	3.5
Total Pkg & Other Paper	404	421	392	3,011	2,946	2.2
Unbl. Kraft Paper (s)	236	241	244	1,748	1,804	-3.1
Other Paper	168	180	148	1,263	1,142	10.6
TOTAL PAPER	3,110	3,158	3,082	22,355	21,246	5.2
PAPERBOARD GRADES						
Unbleached Kraft Paperboard	1,619	1,583	1,642	11,292	10,904	3.6
Unbleached Kraft Linerboard	1,509	1,477	1,523	10,530	10,140	3.9
Other Unbl. Kraft Paperboard	111	106	119	762	765	-0.3
Semichemical Paperboard	480	466	466	3,318	3,265	1.6
Bleached Paperboard	389	366	382	2,612	2,596	0.6
Recycled Paperboard	691	737	658	5,176	4,882	6.0
TOTAL PAPERBOARD	3,178	3,152	3,148	22,398	21,648	3.5
TOTAL PAPER AND PAPERBOARD	6,288	6,311	6,230	44,753	42,894	4.3

WOOD PULP (ALL GRADES)	JUNE 1988	MAY 1988	JUNE 1987	FIRST SIX MONTHS 1988	1987	% Change 88/87
Dissolving & Special Alpha	131	99	113	658	640	2.8
Bleached Sulfite)	129	126	119	766	709	8.1
Unbleached Sulfite)						
Bleached & Semi-Bl. Sulfate	2,135	2,070	2,129	13,009	12,592	3.3
Unbleached Sulfate	1,739	1,816	1,784	10,800	10,574	2.1
Semichemical	349	373	355	2,160	2,132	1.3
Groundwood & Thermomechanical	481	507	467	2,978	2,773	7.4
TOTAL PULP DIVISION DATA	4,964	4,991	4,966	30,372	29,421	3.2

(s) - Shipments
P - Preliminary

AUGUST 31, 1988

	Full Year		INDUSTRY DATA 1987 - 1988			Ann. Rate Year - To - Date	% From Same Pd. Last Year
			R		P		
PAPER AND PAPERBOARD -- Tons (000)	1986	1987	May	June	July	1988	
Total Production (API).....: excluding :...	70,889	74,429	6,439	6,311	6,289	76,720	4.3
Total Seasonally Adjusted....:construction:...			6,377	6,382	6,387	76,449	3.8
Imports (including Products).: and wet :..E	11,597	12,528	1,095	1,051	1,030	12,785	3.4
Exports (including Products).: machine :..E	4,593	5,197	452	474	475	5,794	12.6
Apparent Consumption.....: grades :...	77,893 a	81,760 b	7,020	6,959	6,942	83,441 c	3.2
Paper Production % Tonnage Capacity.....	93.2 g	94.0	93.3	95.4	91.1	96.1	-
Paperboard Production % Tonnage Capacity.....	94.3 g	96.8	98.4	97.4	95.2	97.9	-
			April	May	June		
IMPORTS.....:Including Construction and :...	11,936	12,837	1,088	1,123	1,078	13,152	3.3
EXPORTS.....: WMB Grades (excl. HPB) :...	4,687	5,304	506	464	491	5,951	13.6
			April	May	June		
MARKET WOOD PULP PRODUCTION - Tons (000).....	7,572	8,114	676	642	700	8,306	5.4
TOTAL WOOD PULP PRODUCTION - Tons (000).....	57,005	59,552	5,004	4,991	4,964	60,745	3.2
WOOD PULP IMPORTS - TONS (000).....	4,582	4,850	428	415	415	5,017	3.3
WOOD PULP EXPORTS - TONS (000).....	4,458	4,889	453	433	497	5,417	14.2
RAW MATERIALS CONSUMPTION - Tons (000)							
..PAPER AND BOARD MILLS : excluding :			April	May	June		
Wood Pulp.....:consumption for:.....	57,061	59,488	5,004	5,041	4,932	60,674	2.9
Waste Paper.....:construction & :.....	17,285	18,296	1,541	1,611	1,563	18,919	4.9
TOTAL.....: WMB grades :.....	74,345	77,784	6,545	6,652	6,495	79,593	3.4
PULPWOOD CONSUMPTION Cords(000)Amer.Pulpwd. Assn	91,434	93,946	8,137	7,650	7,689	95,382	2.3
EMPLOYMENT (000)			May	June	July		
Paper and Allied Products.....Total.....	673.7	679.0	687.0	697.0	691.5	686.8	1.6
Pulp, Paper and Board Mills.....Total.....E	248.1	244.9	245.3	250.0	247.5	245.6	0.1
AVERAGE HOURLY EARNINGS OF PRODUCTION WORKERS ($)			May	June	July		
Paper and Allied Products.....	11.18	11.42	11.64	11.63	11.74	11.60	2.1
Pulp, Paper Mills.....E	13.63	14.00	14.25	14.32	14.40	14.19	2.2
Paperboard Mills.....E	13.98	14.30	14.62	14.34	14.40	14.48	1.4
CAPITAL EXPENDITURES, PAPER & ALLIED PRODUCTS			1987 Q3	1987 Q4	1988 Q1		
(Rept. by US Dept. of Com., Ann. Rates, Bill.$)*	8.77	8.92	8.84	10.02	9.58	11.37 Y	27.5
INDEX OF OUTPUT PER MAN-HOUR (1977=100).....			May	June	July		
:IN PULP, PAPER :...Production Workers.....	131.2	140.0	142.4	142.0	145.5	144.1	3.5
:AND BOARD MILLS:...All Employees.....	128.6	136.7	139.1	139.0	141.2	140.7	3.7
PAPER AND ALLIED PRODUCTS (Million $)			April	May	June		
Industry Shipments (Dept. of Commerce)*.....	103,916	118,855	10,990	10,280	10,356	127,408	11.8
Pulp, Paper and Paperboard*.....	44,033	51,518	5,039	4,525	4,547	57,278	17.6
Inventories (End of Period) - Total Industry*..	10,429	11,284	11,534	11,390	11,436	11,436	4.9
Pulp, Paper and Paperboard*.....	4,115	4,266	4,355	3,957	3,978	3,978	-4.7
			1987 Q3	1987 Q4	1988 Q1		
Sales (Corporations Only).....	74,844	95,576 RS	24,710	25,088	25,504	102,816	16.0
Earnings (Corporations Only).....	3,280	5,520 RS	1,586	1,495	1,744	6,976	56.0
Depreciation (Corporations Only).....	3,389	4,279 RS	1,108	1,051	1,169	4,676	10.2
Net Worth (Corporations Only).....	31,221	39,217 RS	38,040	39,217	40,213	40,213	11.9
PRICE INDEXES (Bureau of Labor Stats)1982=100			May	June	July		
Pulp, Paper & Products, ex. Building Grades....	107.5	114.3	124.1	124.8	125.6	122.6	8.6
Wood Pulp.....	94.7	111.6	137.2	140.1	138.3	132.5	21.6
Waste Paper.....	142.6	181.4	184.5	183.9	185.3	188.9	6.8
Paper.....	107.0	111.5	122.0	122.3	123.6	120.8	9.6
Paperboard.....	106.5	118.1	133.1	134.0	134.3	131.2	13.5
PAPER DEMAND (INDEXED: 1977=100)			May	June	July		
Total Paper Production *.....	128.0	133.8	138.8	139.1	139.5	138.4	4.7
Paper New Supply *.....	133.7	140.6	145.3	144.8	145.5	144.8	4.2
Demand Indicators - (Weighted Average) *.....	146.4	154.5	161.1	162.5	163.4	161.3	5.7
Production of Nondurable Goods *...(21.2%).	130.1	136.8	141.9	142.5	143.6	142.1	5.2
Disposable Income .....*.(23.9%)	127.8	130.0	134.5	135.1	135.4	134.0	3.7
Total Printing and Publishing *...(54.9%).	160.9	172.0	180.1	182.2	183.2	180.6	6.5
Trend Factor			------ Not Available ------				
PAPERBOARD DEMAND (INDEXED: 1977=100)							
Total Paperboard Production *.....	121.9	129.1	131.5	131.4	131.2	131.6	3.0
Production for Domestic Use	118.7	126.5	129.5	128.6	129.0	128.7	3.1
Demand Indicators - (Weighted Average) *.....	121.9	125.9	131.3	131.8	132.6	130.8	5.1
Production of Consumer Goods *...(62.0%)	124.1	127.7	132.5	133.0	133.4	132.1	4.2
Production of Equipment *...(5.7%) *	143.7	148.8	157.6	158.5	159.8	156.8	7.0
Production of Materials *...(32.1%)	113.8	118.3	124.2	124.7	126.2	123.8	6.6
Trend Factor			------ Not Available ------				
NEWSPRINT MARKETS			April	May	June		
Consumption by Publishers - Tons (000).....	13,158	13,583	1,128	1,166	1,091	15,589	18.2
Newspaper Pub. and Printing Empl. Total(000)...	461	471	475	476	480	476	2.0
PRINTING AND FINE PAPER MARKETS							
MAGAZINE ADVERTISING PAGES (PIB, Inc.).....	154,317	160,573	15,102	15,065	12,891	181,174	14.9
WHOLESALERS SALES AND INVENTORIES (Million $)							
Total Paper & Pap. Prdcts.,ex Wallpaper..Sales	38,245	44,741	4,029	4,072	4,440	50,268	21.2
Inventories (End of Period).	3,577	3,850	4,107	3,999	4,081	4,081	14.5
FIBRE BOX DATA (Fibre Box Association)			May	June	July		
Fibre Box Shipments (Million square feet).....	283,921	297,827	24,996	25,866	24,470	305,470	3.2
Container'bd Inventory at Mill & Plant(000Tons).	2,238	2,486	2,595	2,617	2,709	2,709	11.2
RETAIL TRADE (Billion $)			May	June	July		
Total Retail Sales *.....	1,437	1,509	133	133	134	1,582	6.4
Nondurable Goods Stores Sales *.....	899	951	82	83	83	980	4.2
GENERAL ECONOMIC DATA			May	June	July		
TOTAL INDUSTRIAL PRODUCTION (INDEX 1977 = 100)*..	125.1	129.8	136.1	136.6	137.7	135.6	5.9
PRODUCER PRICES(ALL COMMODITIES)(INDEX 1982=100).	100.2	102.8	106.5	107.4	107.8	105.9	3.9
CONSUMER PRICES (ALL ITEMS) (INDEX 1982-4=100)...	109.6	113.6	117.5	118.0	118.5	117.0	4.0
			April	May	June		
TOTAL CONSUMER CREDIT OUTSTANDING - (Billion $)..	586	621	627.1	632.3	638.6	638.6	8.9
GROSS NATIONAL PRODUCT - ANNUAL RATE (Billion$)..			1987 Q4	1988 Q1	1988 Q2		
G.N.P. or Expenditure - Current $.....	4,240	4,527	4,663	4,725	4,820	4,772	7.5
G.N.P. or Expenditure - 1982 $.....	3,722	3,847	3,923	3,956	3,988	3,972	4.5

lb/capita

Pap&Papbd	Othr	Totl	Popul(mil)
.a - 645	+ 18	= 663	241.6
.b - 670	+ 17	= 687	243.8
.c - 680	+ 17	= 697	245.5

.e - estimated by API

f - Wood Pulp Production excludes def., explo. & scrngs.

g - Adjusted for holiday shutdowns

Q - Quarter

R - Revised

Y - Full year estim. by U.S. Dept. of Com.

* - Seasonally Adjusted.